

Model	Description	Control	Torque	Power supply
MDB42	Damper actuators	on/off or floating	5 Nm	24 Vac/Vdc
MDB52		Modulating 2-10 V		
MDB42M	Damper actuators with auxiliary microswitches	on/off or floating		



APPLICATION AND USE

MDB42/52 are damper actuators operating air control dampers in ventilation and air-conditioning systems in building services installations for air dampers up to approx. 1 m².

TECHNICAL CHARACTERISTICS

Power supply 24 Vac/Vdc ±20%, 50–60 Hz
 Control On/Off + floating (MDB42 only)
 Consumption 1.0 W / 2.0 VA
 Connections terminals for cable 0.5..1.5mm²
 Angle of rotation 95° max. (changeable from outside)
 Direction of rotation Changeable from inside
 Torque 5 Nm min. with nominal voltage
 Running time 60...120 s @ 90°
 Position indicator mechanical
 S1/S2 aux.microswitches n° 2, changeable from inside (MDB42M only)

Power supply aux. microswitches 250 Vac / 5A (res.) 2.5A (ind.)
 Protection degree IP 42
 Room humidity 95% R.H. (EN 60730-1)
 Room temperature –30T50 °C
 Maintenance free
 Weight about 0.5 kg

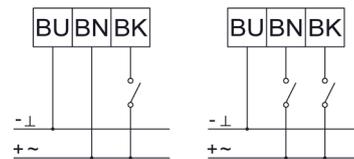
MDB52 only

Consumption 1.5 W / 2.5 VA
 Control signal Y 0...10 Vdc or 2..10 Vdc (Standard) or 0...20 mA or 4...20 mA
 Feedback signal U 0...10 Vdc or 2..10 Vdc (Standard)

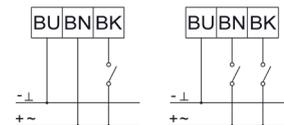
EMC 89/336 directive compliance.

WIRING DIAGRAMS

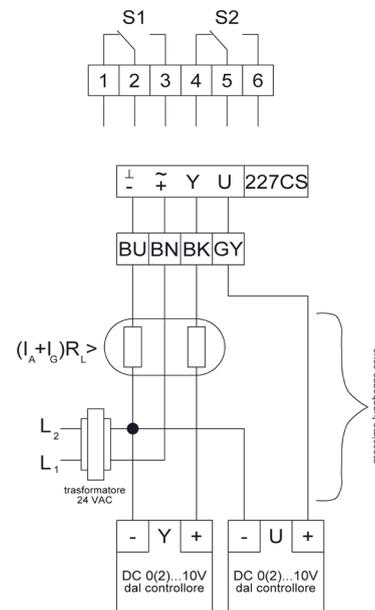
MDB42



MDB42M



MDB52



Legend

Code	Colour	Num.
BU	Blue	cabl 1
BN	Brown	cabl 2
BK	Black	cabl 3
GY	Grey	cabl 4

OPERATION

Adjustment of the rotation angle (Fig. 1)

Both end stops are adjusted to 0 (0°) and 1 (90°). For smaller rotation angles, loosen the screws at the metal end stop, adjust the end stops as requested, and fasten the screws again.

Damper shaft locking (Fig. 1)

Mounting by the locking clamp to the damper shaft:

- 8...12 mm
- ∅ 8...16 mm

Aux. microswitches adjustment (Fig. 2)

The scale at the adjusting knob corresponds to a percentage graduation, related to 0° - 90°.

End stop is set to "0": Switch off the motor and choose the requested switching position by turning the knob to the right, i.e. "2" = 20%.

End stop is set to "1": Switch off the motor and choose the requested switching position by turning the knob to the left, i.e. "8" = 20%.

Switch configuration - direction of rotation MDB42 On/Off (Fig. 3)

Direction of rotation	Clockwise (0...90°)	Anticlockwise (90...0°)
Switch position		
L/CCW	2/3 powered terminals	2 powered terminal
R/CW	2 powered terminal	2/3 powered terminals

Switch configuration - direction of rotation MDB42 Floating (Fig. 3)

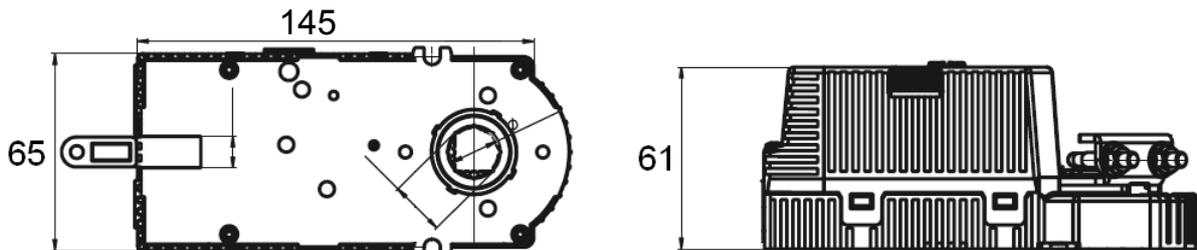
Direction of rotation	Clockwise (0...90°)	Anticlockwise (90...0°)
Switch position		
L/CCW	3 powered terminal	2 powered terminal
R/CW	2 powered terminal	3 powered terminal

Operating Dip Switch configuration MDB52 (Fig. 4)

Direction of rotation	OFF	ON
Clockwise (0...90°)	3	--
Anticlockwise (90...0°)	--	3
Control signal Y		
2...10 Vdc (Standard)	1/2	--
0...10 Vdc	2	1
4...20 mA	1	2
0...20 mA	--	1/2
Stroke learning		
Enable	--	4
Disable	4	--

All auxiliary switches are factory set in Off position.

DIMENSIONS (mm)



The performances stated in this sheet can be modified without any prior notice due to design improvements

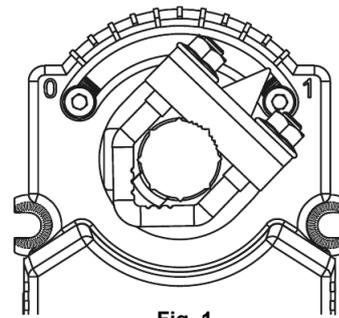


Fig. 1

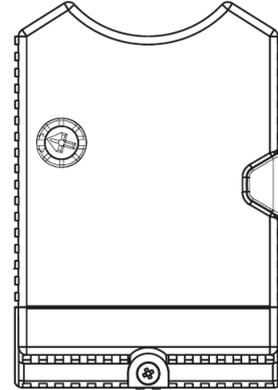


Fig. 2

MDB42

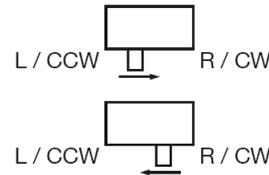


Fig. 3

MDB52

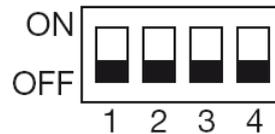


Fig. 4